## Search History

## DATE: Wednesday, February 04, 2004 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PC	GPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, PLUR=YES, OP=AB, OP=AB	DJ	
<u>L5</u>	L4 and clean\$	297	<u>L5</u>
<u>L4</u>	emulsion same azeotrop\$	1600	<u>L4</u>
<u>L3</u>	dipropyleneglycol with ((monopropyl ether) or (mono n propyl ether))	18	<u>L3</u>
<u>L2</u>	L1 and 134/\$.ccls.	70	<u>L2</u>
<u>L1</u>	(monopropyl ether) or (mono n propyl ether)	2129	<u>L1</u>

END OF SEARCH HISTORY

# Refine Search

Your wildcard search against 10000 terms has yielded the results below.

## Your result set for the last L# is incomplete.

The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

## Search Results -

Term	Documents
CLEAN\$	0
CLEAN	582747
CLEANA	30
CLEANABFFITY	1
CLEANABFLITY	1
CLEANABFLITY:	1
CLEANABI	2
CLEANABIC	1
CLEANABIE	4
CLEANABIHTY	1
CLEANABIILTY	1
(L4 AND CLEAN\$ ).PGPB,USPT,USOC,ÉPAB,JPAB,DWPI,TDBD.	297

There are more results than shown above. Click here to view the entire set.

Database:	US Pre-Grant Publication Full-Text Database US Patents Full-Text Database US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins	
Search:	L5	Refine Search
	Recall Text Clear	Interrupt

# **WEST Search History**

THUE RETHIS TRESTORE GREAT	Hide Items	Restore	Clear	Cancel
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DATE: Wednesday, February 04, 2004

Hide?	Set Name	Query	Hit Count
•	DB=PGPB, U	USPT, USOC, EPAB, JPAB, DWPI, TDBD; PLUR=	=YES; OP=ADJ
, was	L14	L13 and clean\$.ti.	19
	L13	L12 and azeotrop\$ and \$emulsion	2248
	L12	\$glycol with ether	148459
	DB=USPT;	PLUR=YES; OP=ADJ	
	L11	5415811.pn.	1
	L10	5486314.pn.	1
•	DB=PGPB, $Q$	USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=	=YES; OP=ADJ
. [	L9	6-146041	. 3
	DB = USPT;	PLUR=YES; OP=ADJ	
· 🗖	L8	5271773.pn.	1
	L7	5300154.pn.	1
	DB=PGPB,	USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR	=YES; OP=ADJ
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	DB = USPT;	PLUR = YES; OP = ADJ	
	L5	5300154.pn.	1
. 🗀	L4	5271773.pn.	1
	L3	US-5876510-A.did.	1
- Visit	L2	US-5876510-A.did.	1
	DB=DWPI;	PLUR=YES; OP=ADJ	
	L1	1996wo-us02900	. 1

END OF SEARCH HISTORY

#### First Hit

Generate Collection Print

L2: Entry 1 of 70

File: PGPB

Sep 11, 2003

DOCUMENT-IDENTIFIER: US 20030168079 A1

TITLE: Cleaning agent, cleaning method and cleaning apparatus

<u>Current US Classification</u>, <u>US Primary Class/Subclass</u>: 134/11

<u>Current US Classification, US Secondary Class/Subclass:</u> 134/105

<u>Current US Classification, US Secondary Class/Subclass</u>: 134/110

<u>Current US Classification</u>, <u>US Secondary Class/Subclass</u>: 134/13

<u>Current US Classification, US Secondary Class/Subclass:</u> 134/26

<u>Current US Classification, US Secondary Class/Subclass:</u> 134/30

#### Summary of Invention Paragraph:

[0030] The 14th aspect of the present invention provides the cleaning agent having no flash point or the rinsing agent having no flash point according to the 9th aspect of the present invention, wherein the component (b1) comprises at least one selected from 3-methoxybutanol, 3-methyl-3-methoxybutanol, dipropylene glycol mono-n-propyl ether and dipropylene glycol mono-n-butyl ether.

#### Detail Description Paragraph:

[0107] With respect to the (b1) glycol ether monoalkyl ethers, specific examples of the hydrophilic glycol ether monoalkyl ethers are diethylene glycol monomethyl ether, diethylene glycol monoethyl ether, diethylene glycol mono-i-propyl ether, diethylene glycol mono-n-butyl ether, propylene glycol monomethyl ether, dipropylene glycol monomethyl ether, tripropylene glycol monomethyl ether, 3-methoxybutanol and 3-methyl-3-methoxybutanol. Specific examples of the hydrophobic glycol ether monoalkyl ethers are ethylene glycol mono-n-hexyl ether, propylene glycol mono-n-butyl ether, dipropylene glycol mono-n-propyl ether and dipropylene glycol mono-n-butyl ether. Incidentally, dipropylene glycol mono-n-propyl ether and dipropylene glycol mono-n-butyl ether are superior in cleaning property to soil of amine hydrochlorides and organic acids, which cause an ionic residue in a flux cleaning, and soil of polymer rosin and rosin metal

salts, which are produced in a soldering step and cause a white residue.

#### Detail Description Paragraph:

[0114] As the glycol ethers used in the present invention, more preferred from a viewpoint of low toxicity are dipropylene glycol monomethyl ether, dipropylene glycol mono-n-propyl ether, dipropylene glycol mono-n-butyl ether, dipropylene glycol dimethyl ether, 3-methoxybutanol and 3-methyl-3-methoxybutanol, which produce no alkoxyacetic acid during metabolism in a human body.

#### Detail Description Paragraph:

[0118] As the glycol ether acetates used in the present invention, more preferred from a viewpoint of low toxicity are dipropylene glycol monomethyl . ether acetate, dipropylene glycol mono-n-propyl ether acetate, dipropylene glycol mono-n-butyl ether acetate, 3-methoxybutyl acetate and 3-methyl-3-methoxybutyl acetate, which produce no alkoxyacetic acid during metabolism in a human body.

#### Detail Description Table CWU:

Z TABLE 2 Comparative Example Component (parts by weight) 1 2 3 4 5 6 7 8 9 10 11 12 Component al A mixture of methyl perfluorobutyl -- -- -- -- -- -- -- -- 96 95 -- ether and methyl perfluoroisobutyl ether (commercial name of HFE7100, manufactured by Sumitoim 3M Limited) 4H,5H,5H-Perfluorocyclopentane -- -- -- -- 98 (commercial name, Zeorora H manufactured by Nippon Zeon Co., Ltd.) Component a2 Ethanol 100 -- -- -- -- -- -- -- -- 2 i-Propanol -- 100 -- -- -- -- -- -- -- 2 i-Propanol -- 100 -- -- -- -- -- -- -- -- -- Diethylene glycol n-butyl ether -- -- -- 100 -- -- -- -- -- -- -- Dipropylene glycol mono-n-propyl ether -- -- -- -- 100 -- -- -- -- -- -- -- Dipropylene glycol dimethyl ether -- -- -- -- 100 -- -- -- -- 3-Methyl-3-methoxylbutyl acetate -- -- -- -- -- 100 -- -- -- Butyl lactate -- -- -- -- -- -- 100 -- -- -- Butyl lactate -- -- -- -- -- -- -- 100 -- -- -- -- Butyl

### Detail Description Table CWU:

3 TABLE 3 Comparative Example Example Component (parts by weight) 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 13 14 15 Component al 4H,5H,5H-Perfluorccyclopentane -- -- -- 60 60 70 -- -- 15 45 -- -- -- 100 -- -- (commercial name, Zeorora H manufac- tured by Nippon Zeon Co., Ltd.) A mixture of methyl perfluorobutyl 60 50 60 60 -- -- 45 68 60 54 15 -- 50 50  $66\ 60\ --\ 100\ --$  ether and methyl perfluoroisobutyl ether (commercial name of HFE7100, manufactured by Sumitomo 3M Limited) 2H,3H-Perfluoropentane (commercial -- -- -- -- 100 name of VERTREL XF, manufactured by Mitsu Dupon Fluorochemical) Component a2 Ethanol -- -- -- -- -- 2 -- 1 -- -- 4 4 -- -- -- Component b Component b1 Hydro-philic Diethylene glycol mono-n-butyl ether -- -- -- ---- 10 -- -- -- 20 -- -- -- 3-Methyl-3-methoxybutanol 40 ---- -- 20 -- -- 36 -- -- -- -- 30 20 -- -- -- Dipropylene glycol Hydro-Phobic Diethylene glycol mono-n-propyl ether -- -- -- -- -- -- -- --15 -- 20 -- -- -- 16 -- -- Diethylene glycol mono-n-butyl ether -- --- -- -- 20 -- -- 20 -- 10 -- -- -- '10 -- -- -- Component b2 hydrophilic Diethylene glycol di-n-butyl ether -- -- 40 -- -- 20 -- -- 25 -- --

```
20 -- 20 -- -- -- Dipropylene glycol dimethyl ether -- -- -- -- --
- 19 -- -- 20 -- -- -- 20 -- -- 3-Methyl-3-methoxylbutyl acetate --
-- -- -- Butyl lactate -- --
-- 40 -- -- -- Component c 2,6-Di-t-
butyl-p-cresol -- -- -- -- -- -- 0.05 0.05 -- -- -- -- -- --
- (2) Oil dissolution property .largecircle. .largecircle. .largecircle.
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.circleincircle. X X X
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#### CLAIMS:

14. The cleaning agent having no flash point or the rinsing agent having no flash point according to claim 9, wherein the component (b1) contains at least one selected from 3-methoxybutanol, 3-methyl-3-methoxybutanol, dipropylene glycol mono-n-propyl ether and dipropylene glycol mono-n-butyl ether

## **Hit List**

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

**Search Results** - Record(s) 1 through 15 of 70 returned.

☐ 1. Document ID: US 20030168079 A1

Using default format because multiple data bases are involved.

L2: Entry 1 of 70

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030168079

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030168079 A1

TITLE: Cleaning agent, cleaning method and cleaning apparatus

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Kabashima, Kazuo Yokohama-shi JP Kato, Kenichi Kawasaki-shi JP

Matsumoto, Shoji Tokyo JP

US-CL-CURRENT:  $\underline{134}/\underline{11}$ ;  $\underline{134}/\underline{105}$ ,  $\underline{134}/\underline{110}$ ,  $\underline{134}/\underline{13}$ ,  $\underline{134}/\underline{26}$ ,  $\underline{134}/\underline{30}$ ,  $\underline{510}/\underline{365}$ ,  $\underline{510}/\underline{407}$ ,  $\underline{510}/\underline{417}$ 

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOMO
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## ☐ 2. Document ID: US 20030102011 A1

L2: Entry 2 of 70 File: PGPB

Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030102011

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030102011 A1

TITLE: Method of removing material from an interior surface using core/shell particles

1

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE COUNTRY RULE-47

Smith, Dennis E.

Rochester

US

Puccini, Christopher J. Gruszczynski, David W.

Rochester

NY

Webster

NY NY

US US

US-CL-CURRENT: 134/8

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims

☐ 3. Document ID: US 20030040456 A1

L2: Entry 3 of 70

File: PGPB

Feb 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030040456

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030040456 A1

TITLE: Method and apparatus for cleaning article

PUBLICATION-DATE: February 27, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE COUNTRY RULE-47

Imai, Tetsuo

Tokiyama-shi Yamaguchi

JΡ

Nakashima, Masaaki

Tokuyama-shi Yamaguchi

JΡ

US-CL-CURRENT: <u>510/417</u>; <u>134/26</u>, <u>134/61</u>, <u>510/506</u>

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC

4. Document ID: US 20020189644 A1

L2: Entry 4 of 70

File: PGPB

Dec 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020189644

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020189644 A1

TITLE: Method for the liquid cleaning of objects

PUBLICATION-DATE: December 19, 2002

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

ef

RULE-47

Wack, Oskar

Ingolstadt

DΕ

US-CL-CURRENT: 134/10; 134/26, 134/34

Full Title Citation Front Review Classification Date Reference Sequences Attachments

5. Document ID: US 6569251 B1

L2: Entry 5 of 70

File: USPT

May 27, 2003

rage 3 of 9

US-PAT-NO: 6569251

DOCUMENT-IDENTIFIER: US 6569251 B1

TITLE: Detergent for lithography

DATE-ISSUED: May 27, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Takeda; Takashi

Ogasa-gun

JΡ

US-CL-CURRENT: 134/2; 257/E21.255, 510/108, 510/169, 510/171, 510/201, 510/407, 510/505

Full Title Citation Front Review Classification Date Reference

## ☐ 6. Document ID: US 6506261 B1

L2: Entry 6 of 70

File: USPT

Jan 14, 2003

US-PAT-NO: 6506261

DOCUMENT-IDENTIFIER: US 6506261 B1

TITLE: Detergent compositions for the removal of complex organic or greasy

soils

DATE-ISSUED: January 14, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

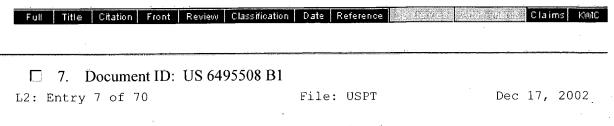
COUNTRY

Man; Victor F.

St. Paul

MN

US-CL-CURRENT: 134/39; 134/25.2, 510/222, 510/223, 510/225, 510/228, 510/229, 510/422, 510/424, 510/466, 510/506



US-PAT-NO: 6495508

DOCUMENT-IDENTIFIER: US 6495508 B1

TITLE: Cleaning wipe

DATE-ISSUED: December 17, 2002

INVENTOR-INFORMATION:

NAME CTTY STATE ZIP CODE COUNTRY
Leonard; Isabelle Voroux-lez-Liers BE
Dormal; Didier Aywaille BE
Julemont; Jean Verviers BE

US-CL-CURRENT: 510/438; 134/42, 15/209.1, 510/295, 510/439, 510/499, 510/505, 510/506

<u>510/506</u>

Full Title Citation Front Review Clas	ssification Date Reference	Claims KWC
		-
8. Document ID: US 64548	76 B1	
L2: Entry 8 of 70	File: USPT	Sép 24, 2002

US-PAT-NO: 6454876

DOCUMENT-IDENTIFIER: US 6454876 B1

TITLE: Method for eliminating malodors

DATE-ISSUED: September 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ochomogo; Maria G.	Danville	CA		
Adair; Martha J.	San Ramon .	CA		
Ali; Sheila E.	San Ramon	CA		
Finn; Leslie E.	Pleasanton	CA		
Peterson; David	Pleasanton	CA		
Piche; Gregory M.	Dublin	CA		
Van Buskirk; Gregory	Danville	CA		

US-CL-CURRENT: <u>134/42</u>; <u>252/8.91</u>, <u>424/76.4</u>, <u>510/276</u>, <u>510/278</u>, <u>510/279</u>, 510/477, 8/137.<u>5</u>

Full Title Citation Front Review Classification Date Reference Chiberia Atlantique Claims KVMC

☐ 9. Document ID: US 6436892 B1

L2: Entry 9 of 70

File: USPT

Aug 20, 2002

US-PAT-NO: 6436892

DOCUMENT-IDENTIFIER: US 6436892 B1

TITLE: Cleaning wipe comprising 2 bromo-2 nitropropane-1,3 diol

DATE-ISSUED: August 20, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Leonard; Isabelle Voroux-lez-Liers BE
Dormal; Didier Aywaille BE

Julemont; Jean Verviers BE

US-CL-CURRENT: 510/438; 134/42, 15/209.1, 510/295, 510/439, 510/499, 510/505,

<u>510/506</u>

Full | Title | Citation | Front | Review | Classification | Date | Reference | Section | Association | Claims | KWIC

☐ 10. Document ID: US 6432897 B1

L2: Entry 10 of 70

File: USPT

Aug 13, 2002

US-PAT-NO: 6432897

DOCUMENT-IDENTIFIER: US 6432897 B1

TITLE: Reduced residue hard surface cleaner

DATE-ISSUED: August 13, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Cable; Elizabeth A. Livermore CA

US-CL-CURRENT: 510/182; 134/40, 510/365, 510/421, 510/424, 510/432, 510/506



#### ☐ 11. Document ID: US 6423150 B1

L2: Entry 11 of 70

File: USPT

Jul 23, 2002

US-PAT-NO: 6423150

DOCUMENT-IDENTIFIER: US 6423150 B1

TITLE: Method for removing resin

DATE-ISSUED: July 23, 2002

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Nakayama; Yasuharu

Kanagawa

JP.

ZIP CODE

US-CL-CURRENT: <u>134/10</u>; <u>134/28</u>, <u>134/3</u>, <u>134/38</u>, <u>430/281.1</u>

Full	Title	Citation	Front	Review	Classification	Date	Reference	Continue of State	made Claims	KWIC

## ☐ 12. Document ID: US 6399555 B2

L2: Entry 12 of 70

File: USPT

Jun 4, 2002

COUNTRY

DE

US-PAT-NO: 6399555

DOCUMENT-IDENTIFIER: US 6399555 B2

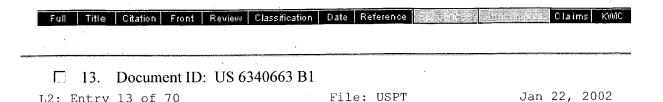
TITLE: Low odor, hard surface cleaner with enhanced soil removal

DATE-ISSUED: June 4, 2002

INVENTOR-INFORMATION:

NAME CITY STATE Robbins; Michael H. Hilden Julian; Jennifer C. Castro Valley CA CA Thompson; Suzanne M. Oakland Robinson; Gary L. Livermore CACA Choy; Clement K. Alamo Gossett; Elizabeth A. CA Livermore

US-CL-CURRENT: 510/238; 134/40, 134/42, 510/191, 510/421, 510/422, 510/423, 510/424, 510/426, 510/427, 510/432, 510/434, 510/499, 510/506



File: USPT

US-PAT-NO: 6340663

DOCUMENT-IDENTIFIER: US 6340663 B1

TITLE: Cleaning wipes

L2: Entry 13 of 70

DATE-ISSUED: January 22, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Deleo; Malcolm A.	Castro Valley	CA		
Blum; Robert L.	Clayton	CA		
Ochomogo; Maria G.	Danville	CA		
Pappalardo; Paul A.	Livermore	CA		
Swayne; Elizabeth N.	Livermore	CA		

US-CL-CURRENT: 510/438; 134/42, 510/108, 510/238, 510/439, 510/470, 510/475, 510/477

Full Title Citation Front Review	Classification Da	ite Reference			Clair	ms KWWC
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☐ 14. Document ID: US 6	315835 B1					
14. Document ID. Ob 0	313033 D1	•				
L2: Entry 14 of 70	F	ile: USPT		Nov	13,	2001

US-PAT-NO: 6315835

DOCUMENT-IDENTIFIER: US 6315835 B1

TITLE: Anti-spotting and anti-filming hard surface cleaning formulations and methods

DATE-ISSUED: November 13, 2001

INVENTOR-INFORMATION:

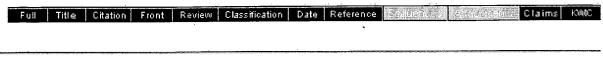
STATE ZIP CODE COUNTRY CITY NAME Kerobo; Charles O. Southfield  $\text{IM}^{\cdot}$ Welch; Michael C. Woodhaven MΙ Holland; Richard J. Flanders NJ Patterson; Sonia J. Detroit MΙ

Gessner; Suzanne M.

Ypsilanti

ΜT

US-CL-CURRENT:  $\underline{134/3}$ ;  $\underline{134/2}$ ,  $\underline{134/22.19}$ ,  $\underline{134/26}$ ,  $\underline{134/34}$ ,  $\underline{134/36}$ ,  $\underline{134/41}$ ,  $\underline{134/42}$ ,  $\underline{510/108}$ ,  $\underline{510/180}$ ,  $\underline{510/238}$ ,  $\underline{510/245}$ ,  $\underline{510/254}$ ,  $\underline{510/434}$ ,  $\underline{510/475}$ ,  $\underline{510/477}$ 



☐ 15. Document ID: US 6309471 B1

L2: Entry 15 of 70

File: USPT

oct 30, 2001

US-PAT-NO: 6309471

DOCUMENT-IDENTIFIER: US 6309471 B1

\*\* See image for Certificate of Correction \*\*

TITLE: Rapid removal of iodine stains

DATE-ISSUED: October 30, 2001

INVENTOR-INFORMATION:

NAME ·

CITY

STATE

ZIP CODE C

COUNTRY

Smith; Kim R.

Woodbury

MN

Hei; Robert D. P.

Baldwin

WI

Levitt; Mark

Full

St. Paul

MN

US-CL-CURRENT: <u>134/28</u>; <u>134/2</u>, <u>134/3</u>, <u>134/36</u>, <u>134/41</u>, <u>134/42</u>, <u>510/109</u>, <u>510/214</u>, <u>510/238</u>, <u>510/278</u>, <u>510/281</u>, <u>510/405</u>

Title	Citation	Front	Review	Classification	Date	Reference			Cla
Clea	ır (	Gene	erate Co	llection	Prin	it   Fv	vd Refs	1	Bkwd Refs
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134/	1								2259
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"134	/102.1"								790
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"134/102.3"	167
"134/103.1"	385
"134/103.2"	492
"134/103.3"	89
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<b>Display Format</b> :	-	Change Format

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